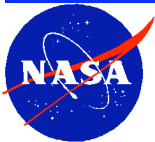


**State of U.S. CCSP, EOS, NASA HQ,
CERES, NPOESS, A-train, NEWS
NASA/NOAA Research to Ops Panel**

**5th CERES-II Science Team Meeting
May 2-4, 2006
Crown Plaza, Williamsburg, VA**



Langley Research Center / Atmospheric Sciences Division



U. S. Climate Change Science Plan (CCSP)

- CCSP Observation Working Group (OWG) is planning a June 14/15 retreat on climate observation requirements.
- Multi-agency report of workshop on satellite calibration requirements for climate data records published in BAMS (Ohring et al., Sept 2005)
- Multi-agency workshop on ways to achieve satellite climate calibration goals to be held May 16-18, 2006 in DC.
- Recent Global Climate Observing System (GCOS) draft document on satellite climate data record requirements out for review/comments by June 12, 2006. Partially based on Ohring et al., 2005 report.



IPCC Assessment Report 4

- Chapter second drafts out for review now (due May 9).
- Decadal changes in cloud/radiation are included in Chapter 3.
- Expanded discussion of climate prediction uncertainties including early perturbed physics ensembles.



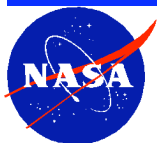
NASA Earth Science

- New NASA Administrator is Michael Griffin
 - Science/Engineering background, from Applied Physics Lab
 - Mary Cleave is AA for Science, Colleen Hartmann is Deputy AA
 - Bryant Cramer is new acting Earth Science Division Director
 - Don Anderson is Modeling lead, Hal Maring is Radiation Sciences
 - Great increase in science/engineering experience in NASA HQ leadership compared to O'Keefe/Diaz: political => technical
 - NRC Earth Science Decadal Study continuing and final report scheduled for ~ Dec 2006. NASA committed to this guidance.
- FY06 and beyond budgets expected to be nearly flat without inflationary increases for earth or space science
 - manned space flight costs have increased
 - lots of problems in earth & space science caused by this: removes about \$3B over the next several years from science.
 - some sanity starting to come to "full cost" accounting process.
- Not clear when next ESSP competition will be



CERES Program

- Terra Senior Review went very well: Terra ranked second of 12 missions considered. No new budget cuts.
- Overall CERES funding moderately decreasing each year as algorithms and data processing mature.
- Appears that the full cost accounting issues are ok for the next few years.
- Next required CERES proposal will be Aqua Senior Review in spring 2007.
- NASA HQ Program Scientist remains Don Anderson
- NASA Energy and Water System (NEWS) science group: global water and energy data sets, including A-train: subsets of CERES, MODIS, CALIPSO, Cloudsat along the lidar/radar ground track (64km swath)

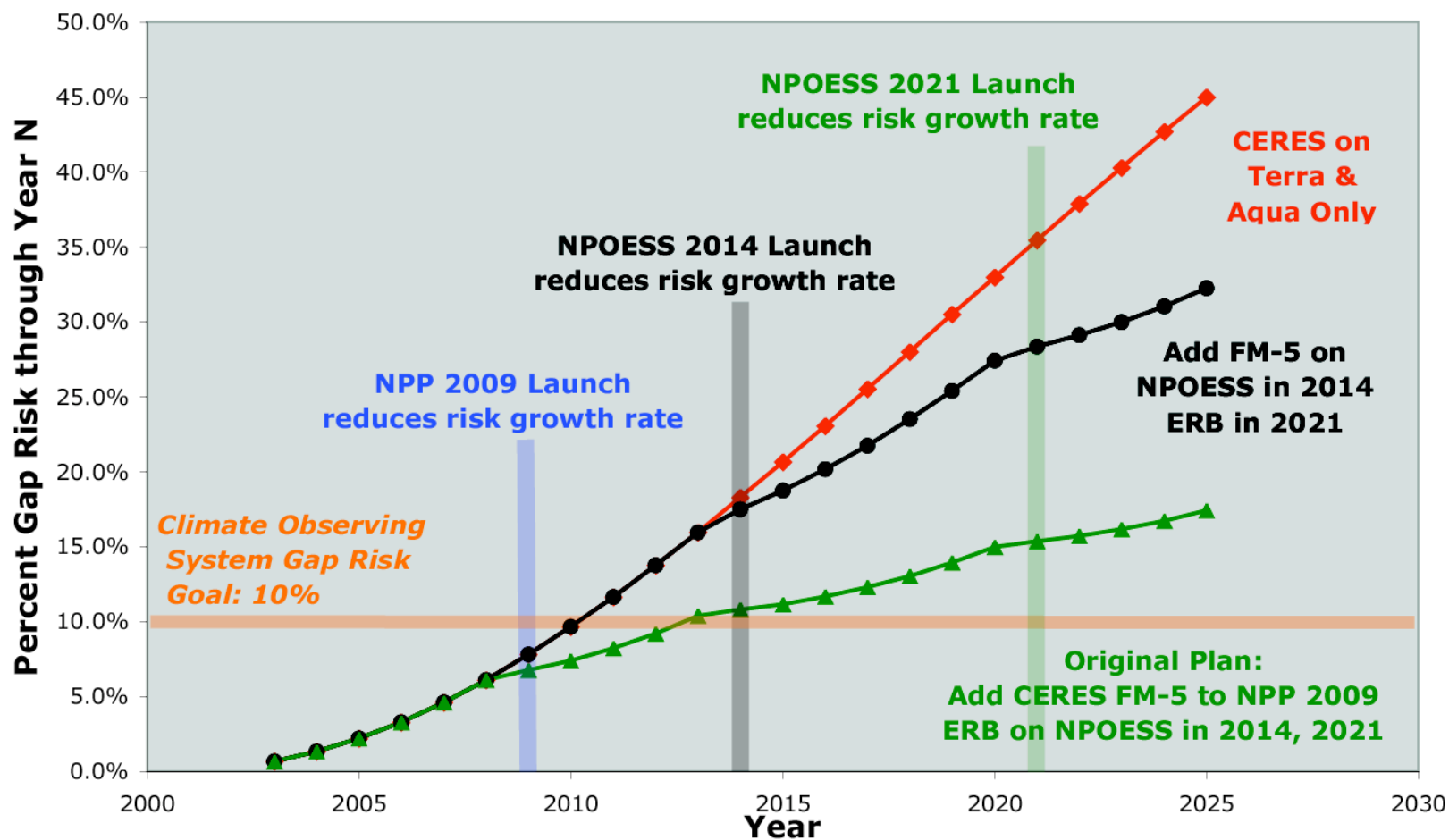


NPP and NPOESS: Delayed 30 months

- CERES FM-5 instrument tentative on first NPOESS 1:30 orbit launch
- NPOESS cost and schedule over-runs have caused a 30-month slip.
 - NPOESS under congressional review for modification/redesign/cancellation with report expected June, 2006. All options being examined.
 - Major problems are with VIIRS imager and CMIS microwave imager/sounder
 - Not clear if NPOESS will be able to meet any climate requirements given budget/schedule problems, and given weather data is critical priority (not climate)
 - CERES has re-examined the radiation budget data gap risk
 - Gap risk now exceeds 10% climate goal (BAMS 2005, Ohring et al).
 - If Terra and Aqua data continue to be taken as long as viable, ~20% radiation budget data gap risk through end of 2014.
 - CERES has sent the gap analysis and suggested minimum improvements to FM-5 MAM, calibration, and characterization if used on NPOESS
 - Suggested improvements based on lessons learned on TRMM, Terra, Aqua
- CERES had been working with NPOESS to estimate costs of transitioning the data product software to NPOESS system
 - *NPOESS concluded most cost effective option is to process data at Langley ASDC using modified CERES code, and send products to IDPS.*



Radiation Budget Gap Risk: Satellite Scenarios Assumes 1 CERES instrument on Aqua, 2 on Terra

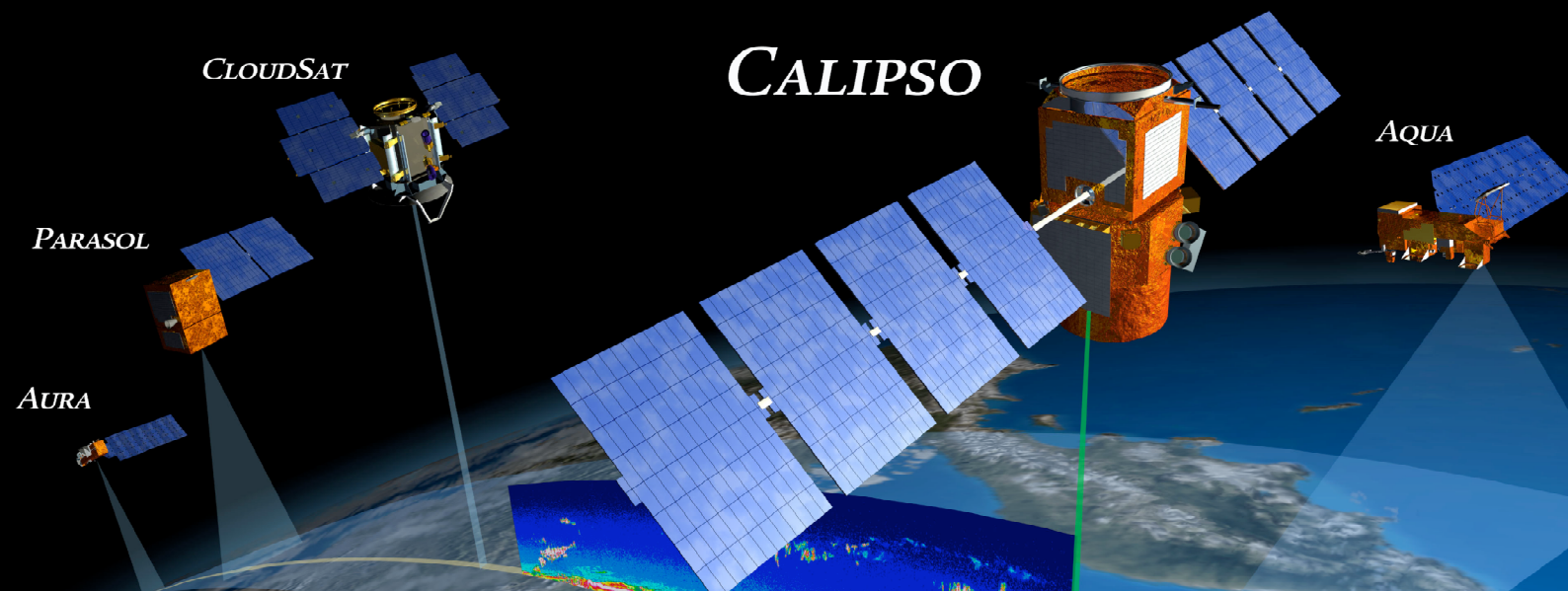


NASA/NOAA Research to Operations

- Congressional bill requires annual report starting Feb 2007 on:
 - progress in transitioning NASA research development to NOAA operations
 - progress in using NOAA operational data in NASA research
- Joint Agency Working Group panel includes (not a complete list):
 - NOAA: Chet Koblinski (climate lead), Louis Uccellini (NCEP), Tom Karl (NCDC)
 - NASA: Jack Kaye (R&A HQ lead), Michelle Reinecker (NSIP, GMAO), Jim Gleason (NPP project lead), Bruce Wielicki (CERES, CCSP Obs W.G.)
- Meeting in January, initial plan for report development, and 5 categories of RTO activities:
 - Follow on missions, Mission Extensions, CDR development/stewardship, Data Utilization, Tools and Standards
- Broader Meeting in April 24-26, U.Md. Conf Center
 - Review all earth science disciplines, lessons learned, challenges, opportunities
 - Radiation: RTO failed for ERBE, getting ready to fail for CERES
 - Weather prediction: 2/3 of progress in computers/physics 1/3 in data assimilated
 - Climate: NPOESS may default, record gaps critical, no OSSEs to prioritize
 - Overall: EOS has shown major advances possible, new active/passive technologies ready to advance, but not the resources to take advantage of either.



Cloudsat and CALIPSO have LAUNCHED!!!



CALIPSO

Probing Earth's atmosphere to unravel the mysteries of climate change.

CERES is working with CALIPSO and CloudSat to provide the science community CERES data subset along the lidar/radar ground track (NASA NEWS program)

